

A pseudo point-source model for off Miyagi intraslab earthquake on May 26, 2003

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In a recent research, a pseudo point-source model, which is a simplified version of the conventional characterized source model, was proposed and it was verified that the source model can be applied to the 2011 Tohoku earthquake, Japan. In the source model, the spatio-temporal distribution of slip within each subevent is not modeled. Instead, the source spectrum associated with the rupture of each subevent is modeled. For the future application of the source model, it is important to investigate its applicability to other destructive earthquakes.

In this study, the off Miyagi intraslab earthquake on May 26, 2003 is taken as an example, and the applicability of the pseudo point-source model is investigated. It was revealed that the source model can reproduce the waveforms and the Fourier spectra at least as well as the conventional characterized source model.

Keywords: pseudo point-source model, intraslab earthquake, strong ground motion, the 2003 off Miyagi earthquake